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EXAMINER

PAUL, DISLER

ART UNIT	PAPER NUMBER
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2615

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11/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/731,077	<b>Applicant(s)</b> KUHNEL, VOLKER	
	<b>Examiner</b> Disler Paul	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/24/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Response to Arguments***

In response to applicant's arguments of claim 1, of there is no teaching of any converting an acoustic signal generated by the receiver of the items, which are identified as being transmission and reception units, into electrical signal. The examiner has found such argument to be persuasive and thus, will consider such limitation over further prior art.

However, in response to the applicant's argument of claims 14, of the nonexistence of any couple element for recording another acoustic signal as being operatively couple to another hearing device. The examiner consider such argument being moot due to the fact in such independent claims the applicant fail to incorporate such limitations in the claims cited.

Similarly, with regard to claim 20, of having a first hearing device is couple to the microphone of the second hearing device by the further couple element, the argument is persuasive.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1,3,7-10,12,29 are rejected under 35 U.S.C. 103(a) as being unpatentable Beck et al. (US 2004/0057591 A1) and Kachler et al. (US 2002/0082794 A1).

Re claim 1, Beck et al. discloses a method for adjusting a first hearing device based on adjustments of a second hearing device ("page 2[0019] line 19-23 & page 2[0028] line 6-10-adjustment made based on received adjustment of second device"), the method comprising the steps of: converting an acoustic test signal into an electric test signal by a microphone of the second hearing device ("fig.1/#2;page 5[0052] line 5"); analyzing the electrical signal in an analyzing unit ("fig.1/#5;fig.2/#17;page 5[0053]line 5-8"); and adjusting the first hearing device based on results obtained in the analysis performed in the analyzing unit ("page 2[0019] line 19-23 & page 2[0028] line 6-10; page 5[0057] line 7-8; fig.1/adjustment based on analyzing unit #5 via transmitter#10 to hearing device 1"). .

While, Beck et al. disclose of the above with including the transmitting signal between the first and second hearing aid device (page 2[0017] line 9-13; fig.1/#8; page 5[0057] line 7-8)), But, Beck et al. fail to disclose of the specific converting the acoustic signal generated by a receiver of the second hearing device into an electrical signal. But, Kachler et al. disclose a system wherein the similar concept of converting the acoustic signal generated by a receiver of the second hearing device into an electrical signal (fig.2-3 wt (5,3,4); page 3[0026] line 14-22) for the purpose of

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checking the serviceability of the hearing aid. Thus, taking the combined teaching of Beck et al. and Kachler et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporate the similar concept of converting the acoustic signal generated by a receiver of the second hearing device into an electrical signal for the purpose of checking the serviceability of the hearing aid.

Re claim 3, the method of claim 1, wherein the acoustic test signal is generated in the first hearing device ("fig.1/2; page 3[0034] line 11-14'-input transducer mean to pick up test signal").

Re claim 7, the method of claim 1, wherein the step of analyzing the electrical signal takes place in a control unit provided inside the first hearing device ("fig.1/#5'- analyzing in control unit inside the first hearing device").

Re claim 8, have been analyzed and rejected with respect to claim 7 respectively.

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Re claim 9, the method of one of claims 1 to 8, further comprising the step of simultaneously feeding the acoustic test signal to a microphone of the first hearing device for its calibration ("page 4[0048] line 4-8; page 5[0049] line 16-20-calibration may be acquired in hearing band").

Re claim 10, the method of one of the claims 1 to 8, wherein a stationary or a speech-modulated noise is used as acoustic test signal ("page 5[0053] line 1-4").

Re claim 12, the method of one of the claims 1 to 8, further comprising the step of adjusting all available hearing programs of the first hearing device ("page 2[0023]; page3[0031] line 6-8").

Re claim 28, the method of claim 1, wherein said adjusting step is for the purpose of configuring settings of said first hearing device to closely match settings already present in said second hearing device (page 2[0019] line 18-23; [0021] line 12-16)/ second hearing aid had adapting mechanism (adjuster) for matching time/amplitude to first hearing aid).

Re claim 29, Beck et al. disclose of the method for adjusting a first hearing device based on adjustments of a second hearing device (fig.1; page 2[0017] line 16-23/ have signal time and amplitude match the first hearing aid), the method comprising the steps of: converting a first acoustic test signal into an electric test signal by a microphone of the second hearing device (page 2[0019] line 1-6; fig.1(2)); having transmitting a second generated signal by a receiver of the second hearing device, wherein said second is based on settings previously applied to said hearing device (page 2[0017] line 13-17/second measure signal path of is transmitted; fig.1 (8), with signal of previous measured setting); analyzing the electrical signal in an analyzing unit to determine the appropriate settings for said first hearing device for closely matching said previously applied settings of said second hearing device and adjusting the first hearing device based on the results obtained in the analysis performed in the analyzing unit such that settings of said first hearing device are adjusted to closely match the previously applied settings of said second hearing device (page 2[0019] line 17-23; page 2[0021] line 12-19/adapting mechanism for adjusting the second hearing aid to second based on time and amplitude).

While, beck et al. disclose of the above, He fail to disclose of the second signal being an acoustic signal generated to

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the second hearing aid into electrical signal. But, Kachler et al. disclose a system wherein the similar concept of converting the acoustic signal generated by a receiver of the second hearing device into an electrical signal (fig.2-3 wt (5,3,4); page 3[0026] line 14-22) for the purpose of checking the serviceability of the hearing aid. Thus, taking the combined teaching of Beck et al. and Kachler et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporate the similar concept of converting the acoustic signal generated by a receiver of the second hearing device into an electrical signal for the purpose of checking the serviceability of the hearing aid.

3. Claims 2,4-6, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. ("US 2004/0057591 A1") and Kachler et al. (US 2002/0082794 A1) and further in view of Gabara et al. ("US 7,024,000 B1").

Re claim 2, Beck et al. and Kachler et al. as a whole, further disclose wherein the acoustic test signal is generated in a control unit ("fig.1/#5;5'"). However, they fail to disclose the limitation of having the control unit being provided outside the hearing devices.

Gabara et al. discloses of a system in readjusting the performance characteristic of the hearing aid in which the control



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unit being provided outside the hearing devices ("fig.1-2/#10,13") for the purpose of remotely performing diagnostic of the hearing aid device.

Therefore, taking the combine teaching of Beck et al. and Kachler and Gabara et al. as a whole, one skill in the art would have found it obvious to modify Beck et al. to incorporate the control unit being provided outside the hearing devices for the purpose of remotely performing diagnostic of the hearing aid device.

Re claim 4, the method of claim 1, wherein the step of analyzing the electrical signal takes place in a control unit provided outside the hearing devices (see claim 2 rejection above).

Re claim 5-6, have been analyzed and rejected with respect to claim 4 respectively.

Re claim 11, the method of one of the claims 1, wherein an acoustic test signal is used ("page 3[0034 line 11-14;page 5[0049] line 1-3") being an unmodulated noise ("page 5[0053] travel car-in most cases make unmodulated, not toned down noise"). However, Beck et al. does not disclose the limitation of the noise being with a level

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step of preferably 25 dB. However, official notice is taken such limitation of noise level of 25db is commonly known in the art as an acceptable level of noise. Thus it would have been obvious for one of ordinary skill in the art to have the noise being at a 25 dB range or level in order to fall within the acceptable range.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. ("US 2004/0057591 A1") and Kachler et al. (US 2002/0082794 A1) and further in view of Bye et al. ("US 2004/0204921A1").

Re claim 13, Beck et al disclose the acoustic test signal ("page 3[0034 line 11-14;page 5[0049] line 1-3"), but fail to disclose the further limitation comprising the step of setting a sound level of 40 to 90 dB SPL.

Bye et al. discloses an improved hearing-related analysis program in which stimulus signals of sound level of zero dB to 100dB ("Bye,page 9[0105] line 14-18") is provided for the purpose of ascertaining the hearing impairments of an individual.

Therefore, taking the combine teaching of Beck et al. and Bye et al. as a whole, one skill in the art would have found it obvious to modify Beck et al. to incorporate the stimulus signals of sound level of zero dB to for the purpose of ascertaining the hearing impairments of an individual.

5. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. ("US 2004/0057591 A1") and Kates ("US 2002/0176584 A1") and Kachler et al. (US 2002/0082794 A1).

Re claim 14, Beck et al. discloses an apparatus comprising a first hearing device and a second hearing device ("fig.1 wt (1,1')"); a loudspeaker generating a acoustic test signal ("fig.1/#4"); a control unit operationally connected to the loudspeaker ("fig.1/#5,4)-are all interconnected"); whereas the acoustic test signal is fed to a microphone of the second hearing device ("fig.1/#2"); the first hearing device which is operatively connected to the control ("fig.1-in first device in which control unit(#5')").

However, Beck et al. fail to disclose the limitation of having the coupling element containing a measurement microphone.

Kates discloses a digital hearing aid in which coupling element containing a measurement microphone ("fig1B/#116,118") for the purpose of measuring the performance of the hearing aid.

Therefore, taking the combine teaching of Beck et al. and Kates as a whole, one skill in the art would have found it obvious to modify Beck et al. to incorporate the coupling element containing a measurement microphone in the speaker for the purpose of measuring the performance of the hearing aid.

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The combined teaching of Beck et al. and Kates as a whole would have incorporate, the further teaching of having the acoustic signal is fed to a microphone of the second hearing aid in which another signal is generated (fig. 1 (1,5,8); (page 2[0017] line 13-17/second measure signal path of is transmitted; fig.1 (8), with signal of previous measured setting).

The combined teaching of Beck and Kates et al. as whole, would have incorporate the having the second hearing device in which an acoustic signal is generated and recorded by the measurement microphone of the couple element ("Kates, fig1B-acoustic signal from (#110) is measured by measurement microphone(#118) of couple element(#116)").

While, Beck and Kates et al. as whole, disclose of the above, with the signal generated by the second hearing device, However, they fail to disclose of the signal generated being an acoustic signal. But, Kachler et al. disclose a system wherein the similar concept of having the signal generated by a receiver of the second hearing device being an acoustic signal (fig.2-3 wt (5,3,4); page 3[0026] line 14-22) for the purpose of checking the serviceability of the hearing aid. Thus, taking the combined teaching of Beck et al. and kates and Kachler et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporate the similar concept of having the

signal generated by a receiver of the second hearing device being an acoustic signal for the purpose of checking the serviceability of the hearing aid.

Re claim 16-17, have been rejected and analyzed with respect to claim 10-11 respectively.

Re claim 18, has been analyzed and rejected wt respect to claim 13.

Re claim 19, have been analyzed and rejected with respect to claim 12.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. ("US 2004/0057591 A1") and Kates ("US 2002/0176584 A1") and Kachler et al. (US 2002/0082794 A1) and Ishige et al. (US 5,910,997).

Re claim 15, the apparatus of claim 14, However, the combined teaching of the combined teaching of Beck et al. and kates and Kachler et al. as a whole, fail to teach of the further couple element is provided to couple a receiver of the first hearing device with a

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microphone of the second hearing device. But, Ishige et al. disclose of a system wherein the similar concept of having the receiver of the first hearing device is coupled to the microphone of the second hearing device by the further couple element (fig.3 wt hearing aid (10,12) and (13); col.3 line 1-2; col.5 line 55-63) for the purpose of enabling the user to confirm the optimized parametric hearing aid characteristic. Thus, taking the combined teaching of Beck et al. and Kates and Kachler et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have incorporated the having the receiver of the first hearing device is coupled to the microphone of the second hearing device by the further couple element for the purpose of enabling the user to confirm the optimized parametric

5. Claim 20-27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. ("US 2004/0057591 A1") and Kates ("US 2002/0176584 A1") and Ishige et al. (US 5,910,997).

Re claim 20, Beck et al. disclose of the apparatus comprising a first hearing device and a second hearing device (fig.1 wt (1,1')); a control unit (fig.1 (5)); But, Beck et al. fail to disclose of the couple element containing a measurement microphone; a further couple element. However, kates et al. disclose of a hearing aid system with having a couple element containing a measurement microphone; a further couple element (fig.1B( 118,120) for the purpose of measuring the

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performance of the hearing aid. Thus, taking the combined teaching of Beck et al. and now Kates as a whole, it would have been obvious for one of ordinary skill in the art to have incorporated the feature of having a couple element containing a measurement microphone; a further couple element for the purpose of measuring the performance of the hearing aid.

The combined teaching of Beck et al. and Kates as a whole would have incorporated, further teaching of the receiver of the second hearing device is coupled to the measurement microphone of the couple element (Kates, fig.1B), and the measurement microphone being operatively connected to the second hearing device, and the control unit being operatively connected to the first hearing device (Beck, fig.1 (5,8)).

While, the combined teaching of Beck et al. and Kates as a whole, teaching of the above, they fail to teach of the limitation wherein the receiver of the first hearing device is coupled to the microphone of the second hearing device by the further couple element. But, Ishige et al. disclose of a system wherein the similar concept of having the receiver of the first hearing device is coupled to the microphone of the second hearing device by the further couple element (fig.3 wt hearing aid (10,12) and (13); col.3 line 1-2; col.5 line 55-63) for the purpose of enabling the user to confirm the optimized parametric hearing aid characteristic. Thus, taking the combined teaching of Beck et al. and Kates as a whole, it would have been obvious for one

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of the ordinary skill in the art to have incorporated the having the receiver of the first hearing device is coupled to the microphone of the second hearing device by the further couple element for the purpose of enabling the user to confirm the optimized parametric hearing aid characteristic.

Re claim 21, the apparatus of claim 20, wherein a loudspeaker is operatively connected to the control unit ("Beck, fig.1-speaker(4,4') is connected to control unit (5,5')").

Re claim 22-25, have been analyzed and rejected wt respect to claim 16-19 respectively.

Re claim 26, the apparatus of claim 20, wherein said control unit is adapted to utilize said couplings such that settings of said first hearing device are adjusted to closely match setting already present in said second hearing device (page 2[0019] line 18-23; [0021] line 12-16]/ second hearing aid had adapting mechanism (adjuster) for matching time/amplitude to first hearing aid).



Re claim 27, has been analyzed and rejected with respect to claim 26 above.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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